

IN THE CLAIMS:

Please AMEND claims 1, 12, 15, 21-24, 28, 32, and 35 as follows.

Please ADD claims 40-53.

Please CANCEL claims 2-11, 13-14, 16-17, and 19-20 without prejudice or disclaimer.

1. (Currently Amended) A method ~~of allocating subcarriers in a multicarrier modulation communication system, the method comprising:~~

allocating a plurality of sets of sequential subcarriers in a multicarrier modulation communication system to a plurality of users, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

2-11. (Cancelled)

12. (Currently Amended) A method as defined in claim ~~11~~, ~~further comprising:~~
~~providing~~wherein the size of ~~the~~ a set of sequential subcarriers ~~comprising~~
comprises a power of two.

13-14. (Cancelled)

15. (Currently Amended) A method as defined in claim 12, wherein ~~said determining the size of the set of subcarriers comprises determining within an allocation period~~ each set of sequential subcarriers ~~having~~ is of the same size.

16-17. (Cancelled)

18. (Original) A method as defined in claim 1, wherein said allocating the plurality of sets of sequential subcarriers comprises taking into account channel properties of at least one user.

19-20. (Cancelled)

21. (Currently Amended) A ~~network element~~device for controlling multicarrier modulation communications, ~~the network element being~~ configured to:

allocate a plurality of sets of sequential subcarriers in a multicarrier modulation communication system to a plurality of users in an allocation period, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

22. (Currently Amended) A ~~network element~~device as defined in claim 21, wherein ~~the~~which is a network element ~~is~~ for a cellular telecommunications network.

23. (Currently Amended) A multicarrier modulation communication system, ~~the multicarrier modulation communication system being configured to:~~

allocate a plurality of sets of sequential subcarriers to a plurality of users in an allocation period, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

24. (Currently Amended) A method, ~~of multicarrier modulation transmission, the method comprising:~~

transmitting at least one signal relating to at least one set of sequential subcarriers in a multicarrier modulation communication system among a plurality of sets of sequential subcarriers allocated in an allocation period to a plurality of users, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

25. (Original) A method as defined in claim 24, further comprising:

allocating the plurality of sets of sequential subcarriers for transmitting information to the plurality of users.

26. (Original) A method as defined in claim 25, further comprising:

transmitting a plurality of signals to the plurality of users.

27. (Original) A method as defined in claim 24, further comprising:

allocating the plurality of sets of sequential subcarriers for transmitting information from the plurality of users.

28. (Currently Amended) A method ~~of multicarrier modulation reception, the method~~ comprising:

receiving at least one signal relating to at least one set of sequential subcarriers in a multicarrier modulation communication system among a plurality of sets of sequential subcarriers allocated to a plurality of users in an allocation period, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

29. (Original) A method as defined in claim 28, further comprising:

allocating the plurality of sets of sequential subcarriers for receiving information from the plurality of users.

30. (Original) A method as defined in claim 29, further comprising:

receiving a plurality of signals from the plurality of users.

31. (Original) A method as defined in claim 28, further comprising:

allocating the plurality of sets of sequential subcarriers for receiving information in the plurality of users.

32. (Currently Amended) A device ~~for multicarrier modulation transmission, the device being configured to:~~

transmit at least one signal relating to at least one set of sequential subcarriers in a multicarrier modulation communication system among a plurality of sets of sequential subcarriers allocated to the plurality of users in an allocation period, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

33. (Original) A device as defined in claim 32, wherein the plurality of sets of sequential subcarriers is allocated for transmitting information to the plurality of users.

34. (Original) A device as defined in claim 32, wherein the plurality of sets of sequential subcarriers is allocated for transmitting information from the plurality of users, the device corresponding to at least one of the users.

35. (Currently Amended) A device, ~~for multicarrier modulation reception, the device being configured to:~~

receive at least one signal relating to at least one set of sequential subcarriers in a multicarrier modulation communication system among a plurality of sets of sequential subcarriers allocated to a plurality of users in an allocation period, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users.

36. (Original) A device as defined in claim 35, wherein the plurality of sets of sequential subcarriers is allocated for receiving information from the plurality of users.

37. (Original) A device as defined in claim 35, wherein the plurality of sets of sequential subcarriers is allocated for receiving information in the plurality of users, the device corresponding to at least one of the users.

38. (Original) A device as defined in claim 34, the device further configured to allocate the plurality of sets of sequential subcarriers.

39. (Original) A device as defined in claim 34, wherein the device is for a cellular telecommunications network.

40. (New) A transmitter, comprising:

an allocating unit configured to allocate a plurality of sets of sequential subcarriers in a multicarrier modulation communication system to a plurality of users, wherein the size of a set of sequential subcarriers is greater than the smallest coherence bandwidth of the plurality of users; and

a transmitting unit configured to transmit at least one signal to the users, wherein the signal comprises information of at least one of said plurality of sets of sequential subcarriers.

41. (New) A receiver, comprising:

a receiving unit configured to receive at least one signal, wherein the signal relates to at least one set of sequential subcarriers in a multicarrier modulation communication system among a plurality of sets of sequential subcarriers allocated to a plurality of users, wherein the size of a set of sequential subcarriers is greater than the smallest coherence width of the plurality of users; and

an operating unit configured to operate the receiving unit to use the at least one set of sequential subcarriers.

42. (New) A method as defined in claim 1, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

43. (New) A device as defined in claim 21, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

44. (New) A system as defined in claim 23, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

45. (New) A method as defined in claim 24, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

46. (New) A method as defined in claim 28, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

47. (New) A device as defined in claim 32, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

48. (New) A device as defined in claim 35, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

49. (New) A transmitter as defined in claim 40, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

50. (New) A receiver as defined in claim 41, wherein the size of a set of sequential subcarriers is about twice the smallest coherence bandwidth of the plurality of users.

51. (New) A method as defined in claim 18, wherein the channel properties include the channel response of at least one user for each set.

52. (New) A method as defined in claim 51, wherein the channel response for a set is measured for one of the plurality of subcarriers of the set.

53. (New) A method as defined in claim 51, wherein the channel response for a set is measured at the lowest subcarrier of the set.